

HF Manpack

Harris' RF-5800H-MP HF manpack is the most advanced, upgradeable, user-friendly HF system Harris has ever built. No other digital HF manpack on the market can match its performance for communications reliability, range, security features, and mission life.

The radio is the clear industry leader. It is the most advanced and integrated HF radio in the world. The RF-5800H includes Automatic Link Establishment (ALE), data rates up to 9600 bps with advanced error-free protocols, an embedded GPS receiver, MELP digital voice, Citadel® encryption, digital ECCM, and a built-in Internet Protocol (IP) interface. Where applicable, these capabilities conform to U.S. and NATO standards.

The RF-5800H, a member of Harris' FALCON II family, is a third generation software-defined radio. The radio platform contains the memory and processing power to accommodate new capabilities. Harris has developed and fielded numerous major features and waveforms since the initial deliveries of the product.

A true digital radio, the RF-5800H-MP manpack outperforms conventional units in both voice and data operations. Covering the 1.6 to 60 MHz spectrum in 10 Hz steps, it goes beyond the standard HF band, making it a highly versatile HF-SSB/VHF-FM transceiver. The built-in multi-waveform modem and 600/2400 bps vocoder provide high data throughput and secure digital voice over the most challenging HF channels. The receiving radio automatically detects and processes the received waveform, whether it's voice or data. Multiple-tone excision filtering further enhances operation under high traffic and interference conditions. Embedded second and third generation of Automatic Repeat Request (ARQ) protocols are employed for error-free transmission of data.

Harris has been the industry leader in ALE technology for 15 years and the FALCON II radios are the beneficiaries. The RF-5800H-MP includes MIL-STD-188-141B, Appendix A, and the new third generation STANAG 4538. It is optimized for performance in tactical environments and provides faster and more robust linking under difficult channel conditions.

RF-5800H HF FALCON II Series**RF-5800H-MP**

Advanced HF-SSB/VHF-FM Tactical Radio System — Manpack

The RF-5800H-MP is an advanced HF/VHF manpack radio that provides reliable tactical communications through enhanced secure voice and data performance, reduced size/weight and extended battery life. The removable keypad/display unit enables operation on-the-move with the transceiver stowed in the user's backpack.

The RF-5800H-MP HF-SSB/VHF-FM transceiver covers 1.6 to 60 MHz at 1, 5, and 20 watts (10 watts FM) PEP/Average. Modes include USB, LSB, CW, AME, and FM. A simple, menu-driven, man-machine interface makes operation easy. Seventy-five user defined net presets provide complete radio configuration including radio operating mode, modem setting, encryption keys.

Key features include:

- **High-Speed Modem Waveforms** — The embedded modem waveform suite offers the most advanced HF data capability available in the tactical radio market place. The supported MIL-STD-188-110B waveforms include the serial tone (2400 bps) modem, high data rate (9600 bps) modem, parallel tone (2400 bps) modem, as well as a set of narrowband FSK waveforms. Also included are the STANAG 4285 and STANAG 4415 serial tone waveforms. Adaptive excision filtering and equalization improve the data modem performance in fading and noisy channels, and counteracts jamming.
- **MELP and LPC-10, 600/2400 bps digital voice** — The digital voice mode utilizes the latest military MELP and LPC-10 algorithms for high-quality secure narrowband voice at 2400 bps. The Harris 600 bps vocoders extend the communication range beyond conventional 2400 bps systems.
- **Enhanced Frequency Hopping (ECCM)** — A proprietary serial tone ECCM provides digital voice and data performance comparable to single channel serial tone modem.
- **MIL-STD-188-141B, Appendix A, Automatic Link Establishment (ALE)** — ALE allows the transceiver to automatically locate the best available channel and link with a desired station or net. The radio also provides AL-1 Linking Protection.

- **STANAG 4538 Third generation HF Link Automation** — Latest integrated high performance Automated Link Establishment (ALE) and data link protocols. Provides superior linking and error free data performance. Fast link setup (FLSU) protocol suite is supported.
- **Tactical Internet**—an embedded wireless networking capability provides the ability to connect outside IPV4 devices and applications over HF circuits. It utilizes 3rd generation HF Link Automation to efficiently route secure IP-based traffic.
- **Integrated Telephony**—When used with the RF-6010 (see Section 1.5) the radio operator can place and receive telephone calls using the radio keypad.
- **The Citadel® encryption** is fully integrated with the digital voice, data, and ARQ capabilities of the radio, providing full security and ease of use. It uses the advanced Harris Citadel encryption chip for its cryptographic engine to provide high-grade information security. The standard option uses the standard Harris proprietary encryption algorithm. Customer-unique algorithms, also using the Citadel chip, are available on special order — contact Product Management.

Additional standard features include a removable keypad/display unit, 24 VDC or self-contained battery operation and RS-232 ASCII remote control. The RF-5800H-MP optional features include Datotek digital encryption, and an embedded GPS receiver. These features are available in system configuration as shown in Table 1.1-1. The RF-5800H-MP does not include external mating connectors. See Table 1.1-7 for list of mating connectors. See "Batteries" section on page 1.1-25 for compatible batteries.

Finish/Color: CARC Green 383.

The RF-5800H-MP radio system includes as a minimum:

- RF-5800H Transceiver
- Operator's Manual
- OE-505 Manpack Antenna Kit
- Enhanced H-250/U type Handset
- Battery Case
- Keypad/Display Unit remote cable
- Ground Stake Kit
- Radio Programming Application
- Asynchronous Programming Cable
- Tactical Chat Communications Software

Optional Features

Datotek Encryption

This encryption option provides backward compatibility with FALCON® RF-5000 series and AN/PRC-138 radios when operated in the encrypted mode. Modes of interoperability are 2400 bps LPC-10 digital voice, and up to 2400 bps data in both fixed frequency and MIL-STD-188-141B modes. See Table 1.1-1 for manpack configurations.

Internal GPS Receiver

The GPS option integrates a 12-channel, C/A Code GPS receiver into the RF-5800 transceiver. This GPS receiver provides front panel display of the unit's position, including longitude, latitude, altitude, speed, and heading. Accurate time derived from the GPS system is also displayed. The RF-5800H-MP also sends position reports automatically to other RF-5800H radio for automated situational awareness. A "hockey puck" GPS antenna (10511-0400-01) with magnetic mounting suitable for portable use is included with the option. See Table 1.1-1 for manpack configurations.

Table 1.1-1.
RF-5800H Optional Features

System Configuration	Encryption	Internal GPS Receiver
RF-5800H-MP025	Citadel	—
RF-5800H-MP026	Citadel	GPS
RF-5800H-MP035	Citadel Datotek	—
RF-5800H-MP036	Citadel Datotek	GPS

AN/PRC-150(C) FALCON II Series



AN/PRC-150(C)

Advanced Secure HF-SSB/VHF-FM Tactical Radio System — Manpack

The AN/PRC-150(C) is an advanced, nomenclatured HF/VHF manpack radio that provides reliable tactical communications through US Government Type 1 encryption for enhanced secure voice and data performance, reduced size/weight and extended battery life. The removable keypad/display unit enables operation on-the-move with the transceiver stowed in the user's backpack.

The AN/PRC-150(C) HF-SSB/VHF-FM transceiver covers 1.6 to 60 MHz at 1, 5, and 20 watts (10 watts FM) PEP/Average. Modes include USB, LSB, CW, AME, and FM. Two types of encryption are included in this radio: US Government Type 1 and Coalition encryption.

A simple, menu-driven, man-machine interface makes operation easy. Seventy-five user defined net presets provide complete radio configuration including radio operating mode, modem settings, COMSEC and TRANSEC keys. This unit is interoperable with non-type 1 radios in secure mode with radios that include standard Citadel encryption in both the HF and VHF bands. The unit is also interoperable in non-secure mode in fixed frequency and ALE with other HF and VHF radio systems.

Key features include:

- Encryption — Two types of embedded encryption are included in this radio: US Government Type 1 and Coalition. The Type 1 encryption is interoperable with KY-99, KY-100, and KG-84 cryptos for HF systems and KY-57 crypto for VHF systems. Coalition encryption is based on the Harris Citadel encryption and can be used to interoperate with RF-5800H radio systems in secure mode.

- High-Speed Modem Waveforms — The embedded modem waveform suite offers the most advanced HF data capability available in the tactical radio market place. The supported MIL-STD-188-110B waveforms include the serial tone (2400 bps) modem, high data rate (9600 bps) modem, parallel tone (2400 bps) modem, as well as a set of narrowband FSK waveforms. Also included are the STANAG 4285 and STANAG 4415 serial tone waveforms. Adaptive excision filtering and equalization improve the data modem performance in fading and noisy channels, and counteracts jamming.
- MELP and LPC-10, 600/2400 bps digital voice — The digital voice mode utilizes the latest military MELP and LPC-10 algorithms for high-quality secure narrow-band voice at 2400 bps. The Harris 600 bps vocoders extend the communication range beyond conventional 2400 bps systems.
- Enhanced Frequency Hopping (ECCM) — A proprietary serial tone ECCM provides digital voice and data performance comparable to single channel serial tone modem.
- MIL-STD-188-141B, Appendix A Automatic Link Establishment (ALE) — ALE allows the transceiver to automatically locate the best available channel and link with a desired station or net. The radio also provides AL-1 Linking Protection.
- STANAG 4538 Third generation HF Link Automation — Latest integrated high performance Automated Link Establishment (ALE) and data link protocols. Provides superior linking and error free data performance. Fast link setup (FLSU) protocol suite is supported.
- Tactical Internet—an embedded wireless networking capability provides the ability to connect outside IPV4 devices and applications over HF circuits. It utilizes 3rd generation HF Link Automation to efficiently route secure IP-based traffic.

Additional standard features include a removable keypad/display unit, 24 VDC or self-contained battery operation, and RS-232 ASCII remote control. The AN/PRC-150(C) does not include external mating connectors. See Table 1.1-7 for list of unit mating connectors. See "Batteries" section on page 1.1-25 for compatible batteries.

Finish/Color: CARC Green 383.

The AN/PRC-150(C) radio system includes as a minimum:

- Radio Transceiver
- Operator's Manual
- OE-505 Manpack Antenna Kit
- Enhanced H-250/U type Handset
- Battery Case
- Keypad/Display Unit remote cable
- Ground Stake Kit
- Radio Programming Application
- Asynchronous Programming Cable
- Tactical Chat Communications Software

Table 1.1-2.
HF Tactical Transceiver Comparison Matrix

	RF-5800H-MP	AN/PRC-150(C)
Frequency (MHz)	1.6 - 60	1.6 - 60
FM	Yes	Yes
Modem Waveforms		
MS-110B App. C (9600bps)	Yes	Yes
MS-110B Serial Tone (2400 bps)	Yes	Yes
MS-110B App. B 39-Tone (2400 bps)	Yes	Yes
STANAG-4285 (2400 bps)	Yes	Yes
Narrow-band FSK (600 bps)	Yes	Yes
Wide-band FSK (16 kbps)	Yes	Yes
STANAG 4538 ARQ Data (LDL, HDL)	Yes	Yes
pFed-Std-1052, ARQ	Yes	Yes
Hopping (ECCM)	Serial Tone	Serial Tone
DV		
2400 bps (LPC-10)	Yes	Yes
600 bps (LPC-10) – extended range	Yes	Yes
2400 bps (MELP)	Yes	Yes
600 bps (MELP) – extended range	Yes	Yes
CVSD	Yes	Yes
ALE		
MS-188-141B Appendix A	Yes	Yes
MIL-STD-188-141B, Appendix B (AL-1)	Yes	Yes
STANAG – 4538 Third Generation	Yes	Yes
SSB Scan	Yes	Yes
GPS	Internal*	External PLGR I/F
AVS	Yes	Yes
Encryption	Citadel® Datotek*	Type 1 & Citadel®
Country-unique algorithms	Yes*	No
Remote Control	ASCII	ASCII
Removable Control-Head	Yes	Yes
Software Upgradeable	Yes	Yes
Jerk-and-Run MP convertible	Yes	Yes

* Indicates an option.

FALCON II 20-Watt System Adapters



RF-5800H-V005

20-Watt HF-SSB/VHF-FM Vehicular Adapter

The RF-5800H-V005 provides the equipment compliment necessary to transform a RF-5800H-MP manpack to a 20-Watt HF-SSB (10-Watt VHF-FM) vehicular system. The adapter facilitates the rapid conversion to a man-portable configuration. This system is recommended for vehicular applications where the radio to antenna separation is greater than 1 meter. **The RF-5800H-MP Receiver/Transmitter is not included and must be ordered separately.**

Key system features include:

- Built-in automatic antenna coupler that eliminates the need for an external coupler to match non-broadband antennas, such as whips.
- 1.6 to 60 MHz frequency range
- Fully ruggedized per MIL-STD-810F
- Matches standard 8-, 10-, 16- and 35-foot whip antennas
- Operation from 26.5 VDC nominal
- Overload protection
- Built-In Test (BIT)

RF-5800H-V005 consists of:

RF-5211VSM	R/T Vehicular Shock Mount
RF-5830H	FALCON II 20-Watt PA/Coupler
10181-9821-020	Coax Cable Assembly (20 foot, 6.1 m)
10181-9827-020	Power Cable Assembly (20-foot, 6.1m)
10515-0121-4200	20-Watt Installation Manual
10535-0720-A020	Control Cable Assembly, PA-RT (20 foot, 6.1m) Ground Strap

FALCON II 125-Watt System Adapters



RF-5800H-V004

125-Watt HF-SSB Vehicular Adapter

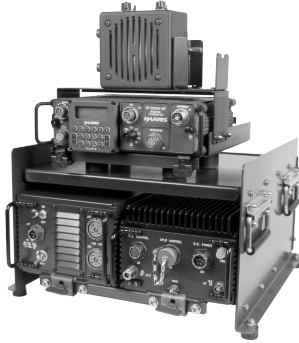
The RF-5800H-V004 provides the equipment compliment necessary to transform a RF-5800H-MP manpack to a 125-Watt PEP/Average HF-SSB vehicular system. The adapter facilitates the rapid conversion to a man-portable configuration. **The RF-5800H-MP Receiver/Transmitter is not included and must be ordered separately.**

Key system features include:

- USB, LSB, CW and AME operation in the 1.6 to 30 MHz HF frequency band
- Solid-state, broadband RF power amplifier
- Small size and weight
- Fully ruggedized and submersible per MIL-STD-810F
- Overload protection
- Operates from 26.5 VDC nominal
- Built-In Test (BIT)

RF-5800H-V004 consists of:

RF-5211VSM	R/T Vehicular Shock Mount
RF-5071VSM-03	PA Vehicular shock mount
RF-5832H	125-Watt PA
10181-9821-020	Coax Cable Assembly (20 foot, 6.1 m)
10181-9826-020	Power Cable Assembly (20-foot, 6.1m)
10515-0124-4200	125-Watt Installation Manual
10535-0720-A020	Control Cable Assembly, PA-RT (20-foot, 6.1m) Ground Strap

**RF-5800H-B004**

125-Watt HF-SSB Base Station Adapter

The RF-5800H-B004 provides the equipment complement necessary to transform a RF-5800H-MP manpack to a 125-Watt PEP/Average HF-SSB base station system. The adapter facilitates the rapid conversion to a man-portable configuration. **The RF-5800H-MP Receiver/Transmitter is not included and must be ordered separately.**

Key system features include:

- USB, LSB, CW and AME operation in the 1.6 to 30 MHz HF frequency band
- Solid-state, broadband RF power amplifier
- Small size and weight
- Integrated loudspeaker
- Fully ruggedized per MIL-STD-810F
- Overload protection
- 115 or 230 VAC, 47 to 400Hz power operation
- Built-In Test (BIT)
- Removable Radio Tray

RF-5800H-B004 consists of:

10558-2000-04	Base Station Mount (Black)
RF-5832H	FALCON II 125-Watt PA
10299-5051-03	RF-5051 Power Supply
10181-5180-01	Loudspeaker
10535-0707-A003	Speaker Audio Cable Assembly
10535-0706-A015	Speaker Power Cable Assembly
10181-9821-015	Coax Cable Assembly
10181-9833-004	DC Power Cable Assembly
10515-0124-4200	125-Watt Installation Manual
10535-0720-A015	Control Cable Assembly, PA-RT
10181-9831-009	AC Power Cable (9 foot) (NEMA 5-15P) P/O RF-5051 Ground Strap

A U.S. power connector (NEMA 5-15P) is supplied as the standard AC power connector. European connector (CEE7) or UK/Ireland connector (BS 1363) may be substituted at no additional charge if specified at time of order. See AC Power Cable, Section 1.6.

**RF-5800H-TM004**

125-Watt HF-SSB Mini-Transit Case Adapter

The RF-5800H-TM004 provides the equipment complement necessary to transform a RF-5800H-MP manpack to a 125-Watt PEP/Average HF-SSB Mini-Transit Case system. The transit case adapter provides the durability of a base station with the transport flexibility and portability of a vehicular system. A clip on each corner of the case can be used to clamp the cases together to produce a portable rack. If the cases are installed in a shelter and the system needs to be removed, it is easy to separate the cases from each other. Storage of all interface cables in the cases facilitates easy equipment deployment. The adapter facilitates the rapid conversion to a man-portable configuration. **The RF-5800H-MP Receiver/Transmitter is not included and must be ordered separately.**

Key system features include:

- USB, LSB, CW and AME operation in the 1.6 to 30 MHz HF frequency band
- Solid-state, broadband RF power amplifier
- Black double-ended environmentally sealed cases
- Weight: Less than 80 lb per case
- Integrated loudspeaker
- Fully ruggedized per MIL-STD-810F
- Overload protection
- 115 or 230 VAC, 47 to 400Hz power operation

RF-5800H-TM004 consists of:

RF-5832H	125-Watt PA
	Black Mini-Transit Cases
10299-5051-03	RF-5051 Power Supply
10181-5180-01	Loudspeaker
10535-0707-A002	Speaker Audio Cable Assembly
10535-0700-A003	Speaker Power Assembly
10181-9821-008	Coax Cable Assembly
10181-9833-02	DC Power Cable Assembly
10515-0124-4200	125-Watt Installation Manual
10535-0720-A008	Control Cable Assembly, PA-RT
10181-9831-009	AC Power Cable (9 foot) (NEMA 5-15P) P/O RF-5051 Ground Strap

A U.S. power connector (NEMA 5-15P) is supplied as the standard AC power connector. European connector (CEE7) or UK/Ireland connector (BS 1363) may be substituted at no additional charge if specified at time of order. See AC Power Cable, Section 1.6.

FALCON II 150-Watt System Adapters**RF-5800H-V001**

150-Watt HF/VHF Vehicular Adapter

The RF-5800H-V001 provides the equipment complement necessary to transform a RF-5800H-MP manpack to a 150-Watt PEP/Average HF-SSB (60-Watt VHF-FM) vehicular system. The adapter facilitates the rapid conversion to a man-portable configuration. **The RF-5800H-MP Receiver/Transmitter is not included and must be ordered separately.**

Key system features include:

- USB, LSB, CW, AME and FM operation from 1.6 to 60 MHz frequency band
- Solid-state, broadband RF power amplifier
- Built-in loudspeaker
- Separate HF and VHF RF outputs
- Small size and weight
- Fully ruggedized per MIL-STD-810F
- Heatsink and fan for continuous keydown
- Overload protection
- Operates from 26.5 VDC
- Built-In Test (BIT)

RF-5800H-V001 consists of:

10497-0200-01	PA vehicular shock mount
RF-5833H	150-Watt PA
10497-5015-01	Coax Cable Assembly
10497-5036-01	Audio Cable Assembly
10181-9826-020	Power Cable Assembly (20 foot, 6.1m)
10515-0122-4200	150-Watt Installation Manual
10535-0720-B17	Control Cable Assembly, (PA-RT) with Ground Strap

**RF-5800H-V002**

150-Watt HF/VHF Vehicular Adapter with Collocation Filtering

The RF-5800H-V002 provides the equipment complement necessary to transform a RF-5800H-MP manpack to a 150-Watt PEP/Average HF-SSB (60-Watt VHF-FM) vehicular system. The adapter includes the RF-5245 Pre/Postselector and an HF low-pass filter for the for attenuation of unwanted signals in collocated applications. The adapter facilitates the rapid conversion to a man-portable configuration. **The RF-5800H-MP Receiver/Transmitter is not included and must be ordered separately.**

Key system features include:

- USB, LSB, CW, AME and FM operation from 1.6 to 60 MHz frequency band
- Built-in loudspeaker
- Built-in Pre/Postselector provides attenuation of unwanted signals at frequencies 10% or greater from the carrier
- Integral Low-Pass filter provides additional attenuation of unwanted signals at frequencies greater than 35 MHz
- Separate HF and VHF RF outputs
- Small size and weight
- Fully ruggedized per MIL-STD-810F
- Heatsink and fan for continuous keydown
- Operates from 26.5 VDC

RF-5800H-V002 consists of:

10497-0200-01	PA vehicular shock mount
RF-5833H	150-Watt PA with RF-5245
10497-0360-02	25 MHz Low Pass Filter
10497-5015-01	Coax Cable Assembly
10497-5036-01	Audio Cable Assembly
10181-9826-020	Power Cable Assembly (20 foot, 6.1m)
10515-0122-4200	150-Watt Installation Manual
10535-0720-B17	Control Cable Assembly, (PA-RT) Ground Strap

**RF-5800H-B001**

150-Watt HF/VHF Base Station Adapter

The RF-5800H-B001 provides the equipment complement necessary to transform a RF-5800H-MP manpack to a 150-Watt PEP/Average HF-SSB (60-Watt VHF-FM) Base Station system. The adapter facilitates the rapid conversion to a man-portable configuration. **The RF-5800H-MP Receiver/ Transmitter is not included and must be ordered separately.**

Key system features include:

- USB, LSB, CW, AME and FM operation from 1.6 to 60 MHz frequency band
- Solid-state, broadband RF power amplifier
- Built-in loudspeaker
- Separate HF and VHF RF outputs
- Small size and weight
- Fully ruggedized per MIL-STD-810F
- Heatsink fan for continuous keydown
- Overload protection
- 115 or 230 VAC, 47 to 400 Hz power operation
- Built-In Test (BIT)

RF-5800H-B001 consists of:

10497-0850-03	Stack Bracket (Black)
RF-5833H-PA001	150-Watt PA
10299-5051-03	RF-5051 Power Supply
10497-5015-01	Coax Cable Assembly
10497-5036-01	Audio Cable Assembly
10515-0122-4200	150-Watt Installation Manual
10535-0720-B17	Control Cable Assembly (PA/RT)
10181-9833-004	DC Power Cable Assembly (4-foot)
10181-9831-009	AC Power Cable (9-foot) (NEMA 5-15P) P/O RF-5051 Ground Strap

A U.S. power connector (NEMA 5-15P) is supplied as the standard AC power connector. European connector (CEE 7) or UK/Ireland connector (BS 1363) may be substituted at no additional charge if specified at time of order. See AC Power Cables, Section 1.6.

**RF-5800H-B002**

150-Watt HF/VHF Base Station Adapter with Collocation Filtering

The RF-5800H-B002 provides the equipment complement necessary to transform a RF-5800H-MP manpack to a 150-Watt PEP/Average HF-SSB (60-Watt VHF-FM) Base Station system. The adapter includes the RF-5245 Pre/Postselector and an HF low-pass filter for the attenuation of unwanted signals in collocated applications. The adapter facilitates the rapid conversion to a man-portable configuration. **The RF-5800H-MP Receiver/Transmitter is not included and must be ordered separately.**

Key system features include:

- USB, LSB, CW, AME and FM operation from 1.6 to 60 MHz frequency band
- Solid-state, broadband RF power amplifier
- Built-in loudspeaker
- Built-in Pre/Postselector provides attenuation of unwanted signals at frequencies 10% or greater from the carrier
- Integral Low-Pass filter provides additional attenuation of unwanted signals at frequencies greater than 35 MHz
- Separate HF and VHF RF outputs
- Small size and weight
- Fully ruggedized per MIL-STD-810F
- Heatsink fan for continuous keydown
- Overload protection
- 115 or 230 VAC, 47 to 400 Hz power operation
- Built-In Test (BIT)

RF-5800H-B002 consists of:

10497-0850-03	Stack Bracket (Black)
RF-5833H-PA002	150-Watt PA with RF-5245
10497-0360-02	25 MHz Low Pass Filter
10299-5051-03	RF-5051 Power Supply
10497-5015-01	Coax Cable Assembly
10497-5036-01	Audio Cable Assembly
10515-0122-4200	150-Watt Installation Manual

10535-0720-B17	Control Cable Assembly, (PA-RT)
10181-9833-004	DC Power Cable Assembly (4-foot)
10181-9831-009	AC Power Cable (9-foot) (NEMA 5-15P) P/O RF-5051 Ground Strap

A U.S. power connector (NEMA 5-15P) is supplied as the standard AC power connector. European connector (CEE 7) and UK/Ireland connector (BS 1363) are available at no additional charge if specified at time of order.



RF-5800H-TM001

150-Watt HF/VHF Mini-Transit Case Adapter

The RF-5800H-TM001 provides the equipment complement necessary to transform a RF-5800H-MP manpack to a 150-Watt PEP/Average HF-SSB/VHF-FM Mini-Transit Case system. The transit case adapter provides the durability of a base station with the transport flexibility and portability of a vehicular system. A clip on each corner of the case can be used to clamp the cases together to produce a portable rack. If the cases are installed in a shelter and the system needs to be removed, it is easy to separate the cases from each other. Storage of all interface cables in the cases facilitates easy equipment deployment. The adapter facilitates the rapid conversion to a man-portable configuration. **The RF-5800H-MP Receiver/Transmitter is not included and must be ordered separately.**

Key system features include:

- USB, LSB, CW, AME, and FM operation in the 1.6 to 60 MHz frequency band
- 150W HF/SSB 1.6–30 MHz; 60W VHF-FM 30–60 MHz
- Solid-state, broadband RF power amplifier
- Separate HF and VHF RF outputs
- Heatsink fan for continuous keydown operation
- Black double-ended environmentally sealed cases
- Weight: Less than 80 lb per case
- Integral loudspeaker
- Fully ruggedized per MIL-STD-810F
- Overload protection
- 115 or 230 VAC, 47 to 400 Hz power operation

RF-5800H-TM001 consists of:

RF-5833H-PA001	150-Watt PA
10299-5051-03	Black Mini-Transit Cases
10497-5015-01	RF-5051 Power Supply
10181-9833-004	Coax Cable Assembly
10515-0122-4200	DC Power Cable Assembly
10535-0720-B17	150-Watt Installation Manual
10181-9831-009	Control Cable Assembly, PA-RT
	AC Power Cable (9 foot) (NEMA 5-15P) P/O RF-5051
	Ground Strap
10497-5036-01	Audio Cable

A U.S. power connector (NEMA 5-15P) is supplied as the standard AC power connector. European connector (CEE 7) or UK/Ireland connector (BS 1363) may be substituted at no additional charge if specified at time of order.



RF-5800H-TM002

150-Watt HF/VHF Mini-Transit Case Adapter with Collocation Filtering

The RF-5800H-TM002 provides the equipment complement necessary to transform a RF-5800H-MP manpack to a 150-Watt PEP/Average HF-SSB/VHF-FM Mini-Transit Case system. The adapter includes the RF-5245 Pre/Postselector and an HF low-pass filter for the attenuation of unwanted signals in collocated applications. The transit case adapter provides the durability of a base station with the transport flexibility and portability of a vehicular system. A clip on each corner of the case can be used to clamp the cases together to produce a portable rack. If the cases are installed in a shelter and the system needs to be removed, it is easy to separate the cases from each other. Storage of all interface cables in the cases facilitates easy equipment deployment. The adapter facilitates the rapid conversion to a man-portable configuration. **The RF-5800H-MP Receiver/Transmitter is not included and must be ordered separately.**

Key system features include:

- USB, LSB, CW, AME, and FM operation in the 1.6 to 60 MHz frequency band
- 150W HF/SSB 1.6–30 MHz; 60W VHF-FM 30–60 MHz
- Built-in pre/postselector provides attenuation of unwanted signals in collocated applications.
- Integral low-pass filter provides attenuation of unwanted signals at frequencies greater than 25 MHz.

- Solid-state, broadband RF power amplifier
- Separate HF and VHF RF outputs
- Heatsink fan for continuous keydown operation
- Black double-ended environmentally sealed cases
- Weight: Less than 80 lb per case
- Integral loudspeaker
- Fully ruggedized per MIL-STD-810E
- Overload protection
- 115 or 230 VAC, 47 to 400Hz power operation

RF-5800H-TM002 consists of:

RF-5833H-PA002	150-Watt PA with RF-5245
	Black Mini-Transit Cases
10299-5051-03	RF-5051 Power Supply
10497-5015-01	Coax Cable Assembly
10181-9833-004	DC Power Cable
10515-0122-4200	150-W Install Manual
10535-0720-B17	Control Cable Assembly, PA-RT
10181-9831-009	AC Power Cable
10497-0360-02	25-MHz low-pass filter
10497-5036-01	Audio Cable

A U.S. power connector (NEMA 5-15P) is supplied as the standard AC power connector. European connector (CEE 7) or UK/Ireland connector (BS 1363) may be substituted at no additional charge if specified at time of order.

FALCON II 400-Watt System Adapters



RF-5800H-V003

400-Watt HF-SSB Vehicular Adapter

The RF-5800H-V003 provides the equipment complement necessary to transform a RF-5800H-MP manpack to a 400-Watt PEP/Average HF-SSB vehicular system. The adapter facilitates the rapid conversion to a man-portable configuration. **The RF-5800H-MP Receiver/Transmitter is not included and must be ordered separately.**

Key system features include:

- SSB, LSB, CW and AME operation in the 1.6 to 30 MHz HF frequency band
- Solid-state, broadband RF power amplifier
- Small size and weight
- Fully ruggedized per MIL-STD-810F
- Overload protection
- Operates from 26.5 VDC nominal
- Built-In Test (BIT)

RF-5800H-V003 consists of:

RF-5211VSM	R/T Vehicular Shock Mount
RF-5074VSM-03	PA Vehicular shock mount
RF-5834H	400-Watt PA
10181-9821-020	Coax Cable Assembly (20 foot, 6.1 m)
10181-9828-020	Power Cable Assembly (20 foot, 6.1m)
10515-0123-4200	400-Watt Installation Manual
10535-0720-A020	Control Cable Assembly, PA-RT (20 foot, 6.1m)
	Ground Strap

**RF-5800H-B003**

400-Watt HF-SSB Base Station Adapter

The RF-5800H-B003 provides the equipment complement necessary to transform a RF-5800H-MP manpack to a 400-Watt PEP/Average HF-SSB base station system. The adapter facilitates the rapid conversion to a man-portable configuration. **The RF-5800H-MP Receiver/Transmitter is not included and must be ordered separately.**

Key system features include:

- USB, LSB, CW and AME operation in the 1.6 to 30 MHz HF frequency band
- Solid-state, broadband RF power amplifier
- Small size and weight
- Integrated loudspeaker
- Fully ruggedized per MIL-STD-810F
- Overload protection
- 115 or 230 VAC, 47 to 400Hz power operation
- Built-In Test (BIT)

RF-5800H-B003 consists of:

10558-2000-03	400W Base Station Mount
RF-5834H	400-Watt PA
10299-5054-03	RF-5054 Power Supply
10181-5180-01	Loudspeaker
10535-0707-A003	Speaker Audio Cable Assembly
10535-0706-A015	Speaker Power Cable Assembly
10181-9821-015	Coax Cable Assembly (15 foot)
10181-9834-004	DC Power Cable Assembly (4-foot)
10515-0123-4200	400-Watt Installation Manual
10535-0720-A015	Control Cable Assembly, PA-RT (15 foot) Ground Straps

A U.S. power connector (NEMA 5-15P) is supplied as the standard AC power connector. European connector (CEE 7) or UK/Ireland connector (BS 1363) may be substituted at no additional charge if specified at time of order. See AC Power Cables, Section 1.6.

**RF-5800H-TM003**

400-Watt HF-SSB Mini-Transit Case Adapter

The RF-5800H-TM003 provides the equipment complement necessary to transform a RF-5800H-MP manpack to a 400-Watt PEP/Average HF-SSB Mini-Transit Case system. The transit case adapter provides the durability of a base station with the transport flexibility and portability of a vehicular system. A clip on each corner of the case can be used to clamp the cases together to produce a portable rack. If the cases are installed in a shelter and the system needs to be removed, it is easy to separate the cases from each other. Storage of all interface cables in the cases facilitates easy equipment deployment. The adapter facilitates the conversion to a man-portable configuration. The RF-5800H-MP Receiver/Transmitter is not included and must be ordered separately.

Key system features include:

- USB, LSB, CW and AME operation in the 1.6 to 30 MHz HF frequency band
- Solid-state, broadband RF power amplifier
- Black double-ended environmentally sealed cases
- Weight: Less than 80 lb per case
- Integrated loudspeaker
- Fully ruggedized per MIL-STD-810F
- Overload protection
- 115 or 230 VAC, 47 to 400 Hz power operation
- Built-In Test (BIT)

RF-5800H-TM003 consists of:

RF-5834H	400-Watt PA
	Black Mini-Transit Cases
10299-5054-03	RF-5054 Power Supply
10181-5180-01	Loudspeaker
10535-0707-A002	Speaker Audio Cable Assembly
10535-0706-A008	Speaker Power Assembly
10181-9821-004	Coax Cable Assembly (4-foot)
10181-9834-004	DC Power Cable Assembly (4-foot)
10515-0123-4200	400-Watt Installation Manual
10535-0720-A008	Control Cable Assembly, PA-RT (8-foot) Ground Strap

A U.S. power connector (NEMA 5-15P) is supplied as the standard AC power connector. European connector (CEE 7) or UK/Ireland connector (BS 1363) may be substituted at no additional charge if specified at time of order. See AC Power Cables, Section 1.6.

**RF-382A-15TM****400-Watt Antenna Coupler Mini-Transit Two-Case Set**

The RF-382A-15TM Antenna Coupler Mini-Transit case is designed to compliment the RF-5800H-TM003 400 Watt transit mini-case system. It consists of two cases and includes the RF-382A-15 Antenna Coupler with associated 250-foot (76 m) lengths of control and coax cable assemblies integrated into two mini-transit cases. Case 1 contains the RF-382A-15 Antenna Coupler, ruggedly mounted on a removable tray. A whip antenna mount is located on the coupler tray. Case 2 is used to store the control and coax cable assemblies which interface to the radio system.

- Case 1 — weight 65 lb
(22.5W x 22.5D x 14.5H in)
- Case 2 — weight 20 lb
(22.5W x 22.5D x 24.5H in)

Also included with the RF-382A-15TM is the following:

10181-9823-250	250-foot (76.1 m) Control Cable
10181-9824-250	250-foot (76.1 m) Coax Cable

**RF-5382H-TM001****150-Watt Antenna Coupler Mini-Transit Two-Case Set**

The RF-5382H-TM001 Antenna Coupler Mini-Transit case is designed to compliment the RF-5800H-TM001, TM002, and TM004 transit mini-case systems. It consists of two cases and includes the RF-5382H Antenna Coupler with associated 250-foot (76 m) lengths of control and coax cable assemblies integrated into two mini-transit cases. Case 1 contains the Antenna Coupler, ruggedly mounted on a removable tray. A whip antenna mount is located on the coupler tray. Case 2 is used to store the control and coax cable assemblies which interface to the radio system.

- Case 1 — weight 60 lb
(22.5W x 22.5D x 14.5H in)
- Case 2 — weight 20 lb
(22.5W x 22.5D x 24.5H in)

Also included with the RF-5382H-TM001 is the following:

12020-1460-250	250-foot (76.1 m) Control Cable
10181-9824-250	250-foot (76.1 m) Coax Cable

Power Amplifiers



RF-5830H-PA001

Power Amplifier/Coupler — 20 Watts PEP/Average

The RF-5830H-PA001 is a solid-state, broadband, 1.6 to 60 MHz power amplifier that increases the output of the transceiver to 20 watts PEP/Average for SSB and 10 watts PEP/Average for FM. Operation of the RF-5830H-PA, including coupler tuning, is fully automatic.

Key features include:

- Integrated power amplifier and coupler in small size
- Ruggedized for reliable operation in extreme environments; MIL-STD-810E compliant
- Matches standard 8-, 10-, 16-, and 35-foot whip antennas
- Overload protection
- BIT (Built-In Test)
- Operates from 26.5 VDC nominal
- Initial Tune time <2 seconds; memory tune <.010 second

Finish/Color: CARC Green 383.

The RF-5830H-PA001 does not include external mating connectors. See Table 1.1-6 for a list of mating connectors.



RF-5832H-PA001

Power Amplifier — 125 Watts PEP/Average

The RF-5832H-PA001 amplifies the output of the respective RF-5832H-MP to 125 watts PEP/Average. The RF-5832H-PA is a solid-state, broadband, 1.6 to 30 MHz RF power amplifier containing an integral power supply, control circuits, and harmonic filters.

Key features include:

- Supports external reprogramming capability
- Solid-state power amplifier
- Small size and weight
- Ruggedized for reliable operation in extreme environments; MIL-STD-810E compliant
- Overload protection
- BIT (Built-In Test)

Control is derived from the receiver-transmitter. The power amplifier can be remoted from the receiver-transmitter up to distances of 150 feet (45.7 m). An external automatic antenna coupler (RF-382A series) is required for proper operation with a whip or other non-broadband antennas. The RF-5832H-PA uses the RF-5071VSM-03 shock mount. Refer to Table 1.1-6 for a list of mating connectors.

Finish/Color: CARC Green 383.

**RF-5833H-PA001**

Power Amplifier — 150 watts PEP Average

The RF-5833H-PA001 is a solid-state, broadband RF power amplifier that covers 1.6 to 60 MHz. It includes an integral power supply and control circuits. This PA increases the output power of the RF-5800H-MP Receiver/Transmitter to 150 watts PEP/Average power for SSB and 60 watts PEP/Average power for FM. The RF-5833H-PA coupled with a transceiver provides base station range, performance, and features, in a jerk-and run applique. The RF-5833H-PA includes a standard fan for continuous keydown and an optional built-in pre/postselector for optimum collocation performance. The RF-5833H-PA has a compact profile that uses half the space of a comparable PA and pre/postselector. An RF-5833H-PA002 version includes the RF-5245 Pre/Postselector.

Key features include:

- Solid-state power amplifier
- Jerk-and-run configuration
- RF-5245 Pre/postselector (in RF-5833H-PA002 version)
- Heatsink fan for continuous keydown
- External programming
- Compact profile
- Dual antenna outputs (HF and VHF)
- Fully ruggedized design per MIL-STD-810E
- Overload protection
- BIT (Built-In-Test)

Control is derived from the RF-5800H-MP which mounts on top of the RF-5833H-PA. The system requires an external RF-382A or RF-5832H automatic antenna coupler for proper operation whip antenna or other non-broadband antennas. These two antenna couplers have an HF broadband antenna output and a 50-ohm VHF antenna output. The RF-5833H-PA uses the RF-5073VSM Vehicular Shock Mount. Refer to Table 1.1-6 for a list of mating connectors.

Finish/Color: CARC Green 383.

**RF-5834H-PA001**

Power Amplifier — 400 Watts PEP/Average

The RF-5834H-PA001 power amplifier increases the output of the RF-5800H-MP to 400 watts PEP/Average and is used in high-power applications. The RF-5834H-PA is a solid-state, broadband, 1.6- to 30-MHz RF power amplifier containing an integral power supply, control circuits, and harmonic filters.

Key features include:

- Solid-state power amplifier
- Small size
- Ruggedized for reliable operation in extreme environments; MIL-STD-810D compliant
- Overload protection
- BIT (Built-In Test)

Control is derived from the Receiver-Transmitter. The RF-5834H-PA can be separated from the Receiver/Transmitter to distances of up to 150 feet (45.7 m). The RF-382A automatic antenna coupler is required for proper operation with a whip or other non-broadband antennas. The RF-5834H-PA uses the RF-5074VSM-03 shock mount. Refer to Table 1.1-6 for a list of mating connectors.

Finish/Color: CARC Green 383.

Collocation and Filtering Options

RF-5245

Digital Pre/Postselector Option for the RF-5833H 150W Power Amplifier

The RF-5245 is an internal, compact solution to collocation filtering for RF-5800H 150-watt HF/VHF radio systems. Used in high interference or collocated environments, the Pre/Postselector provides superior radio system performance. Built-in test of this option is provided by the comprehensive BITE of the standard RF-5800H radio system.

Key features include:

- 1.6 to 30 MHz frequency range
- 25 dB of attenuation of unwanted signals at frequencies 10% or greater from the carrier
- Fully automatic tuning and switching with no operator control required
- Ruggedized for reliable operation in extreme environments
- Rapid tune time of 20 mSec or less
- Fully protected against signals up to 300 VRMS
- Embedded in the RF-5833H-PA002 150-watt Power Amplifier

10497-0340-01

200W Low Pass Filter Kit for the RF-5832H 125W Power Amplifier

The 10497-0340-01 low-pass filter kit is used to reduce transmitter and receiver signals from 25 MHz and above. Its ultimate stop band is greater than -60 dB from 25 to 90 MHz. The kit contains all items necessary to mount to the low-pass filter to a flat surface.

Finish/Color: CARC Green 383.

10497-0360-02

200W Low Pass Filter Kit for the RF-5833H 150W Power Amplifier

The 10497-0360-02 low-pass filter kit is used to reduce transmitter and receiver signals from 25 MHz and above. Its ultimate stop band is greater than -60 dB from 25 to 90 MHz. The unit contains all items necessary to attach to the RF-5833H-PA. The 10497-0360-02 is included in the RF-5800H-V002 vehicular, RF-5800H-B002 base-station adapter, and the RF-5800H-TM002 transit case adapter.

Finish/Color: CARC Green 383.

10286-0900-01

500W Low Pass Filter Kit for the RF-5834H 400W Power Amplifier and RF-5800H-V003 400W Vehicular Adapter

The 10286-0900-01 low-pass filter kit is used to reduce transmitter and receiver signals from 25 MHz and above. Its ultimate stop band is greater than -60 dB from 25 to 90 MHz. The kit contains all items necessary to mount to the low-pass filter in the RF-5800H-V003 Vehicular Adapter.

Finish/Color: CARC Green 383.

10286-0900-02

500 W Low Pass Filter Kit for the RF-5834H 400W Power Amplifier and the RF-5800H-B003 400W Base Station Adapter

The 10286-0900-02 low-pass filter kit is used to reduce transmitter and receiver signals from 25 MHz and above. Its ultimate stop band is greater than -60 dB from 25 to 90 MHz. The kit contains all items necessary to mount to the low-pass filter in the RF-5800H-B003 Base Station Adapter.

Finish/Color: CARC Green 383.



RF-5845H-PP001

Digital Pre/Postselector

The Pre/postselector provides significant attenuation of both unwanted receive signals and spurious transmitter outputs for 125-watt and 400-watt systems. The RF-5845H-PP001 is utilized with the RF-5800H-MP.

Used in high-interference or collocated environments, the Pre/Postselector provides greater than 40-dB attenuation of unwanted signals at frequencies 10% removed from the carrier frequency. Built-in test (BIT) and all operational controls are from the transceiver front panel.

Key features include:

- 1.6 - to 30 MHz frequency range
- Fully automatic tuning and switching with no operator controls required
- Ruggedized for reliable operation in extreme environments; MIL-STD-810D compliant
- Rapid tune time of less than 20 msec
- Fully protected against signals up to 300 volts RMS

The unit price includes a manual and all interconnecting cables. Use the RF-5072VSM-03 for wheeled vehicular applications, RF-5075VM for tracked vehicular applications, or the 10299-0580 Base Station Extension when in stationary applications. Refer to Table 1.1-7 for a list of mating connectors.

Finish/Color: CARC Green 383

Antenna Couplers



RF-5382H-CU001

150 Watt HF Fast-Tune Antenna Coupler

The RF-5382H automatically matches the output of transceivers and power amplifiers to a wide variety of whip, dipole, and long-wire antennas over the frequency range of 1.6 to 30 MHz. The coupler features BIT, overload, and lightning surge protection and is designed to handle 150 watts PEP/Average and includes a 50-ohm output connector (type N female) for applications where it is desirable to quickly change from tuning a whip antenna to tuning a 50-ohm antenna. Typical tune time is 150 msec after an initial learning tune cycle of typically less than one second. This antenna coupler requires lengths of 10181-9824 Coaxial Cable and 12020-1460 Control Cable. (Use 12020-0710-B2 for 20-watt configurations.) Standard lengths are 25, 75, 150, and 250 feet. The RF-5382H-CU001 includes the coupler unit, manual, and installation material.

Finish/Color: CARC Green 383.

12020-1194-01

Antenna Coupler Sun Shield for the RF-5382H

The 12020-1194-01 provides a painted aluminum shield to protect the RF-5382H antenna coupler from prolonged exposure to direct sunlight in tropic and subtropic environments where daytime temperatures typically exceed 95°F. This unit is intended for base station or vehicular-mounted antenna couplers, and may be added to existing installations.

12020-1195-01

High Voltage Safety Cover for the RF-5382H

The 12020-1195-01 is a cover assembly that snaps onto the RF-5382H antenna coupler handle to enclose the insulator assembly.



RF-382A-15

400-Watt HF Fast-Tune Automatic Antenna Coupler

The RF-382A-15 automatically matches the output of transceivers and power amplifiers to a wide variety of whip, dipole, and long-wire antennas over the frequency range of 1.6 to 30 MHz. The coupler features BIT, overload, and lightning surge protection. It includes a 50-ohm output connector (type N female) for applications where it is desirable to quickly change from tuning a whip antenna to tuning a 50-ohm antenna. Its tune time is 200 msec after an initial learning tune cycle of typically less than three seconds. This antenna coupler requires lengths of 10181-9824 Coaxial Cable, and 10181-9823 Control Cable. Standard lengths are 25, 75, 150, and 250 feet. The RF-382A-15 includes the coupler unit, manual, and installation material.

Finish/Color: CARC Green 383.

10330-9250

Antenna Coupler Sun Shield for the RF-382A-15

The 10330-9250 provides a painted aluminum shield to protect the RF-382A antenna coupler from prolonged exposure to direct sunlight in tropic and subtropic environments where daytime temperatures typically exceed 95°F. This unit is intended for base station or vehicular-mounted antenna couplers, and may be added to existing installations.

10208-0014-01

High Voltage Safety Cover for the RF-382A-15

The 10208-0014-01 is a cover assembly that snaps onto the antenna coupler handle to enclose the insulator assembly.

Table 1.1-3.
Antenna Coupler Options and Accessories

	RF-5382H-CU001	RF-382A-15
Coax RF Cable	10181-9824	10181-9824
Control Cable	12020-1460 (125W + 150W) 12020-0710-B2 (20W)	10181-9823
Sun Shield	12020-1194-01	10330-9250
Safety Cover	12020-1195-01	10208-0014-01
Shock Mounts	RF-5384VM-01	RF-383VM-01 (tracked vehicles) RF-384VM-03 (wheeled vehicles)
Mounting Plate		RF-285-04
Siting Kits	RF-5351-AT Series	RF-5351-AT Series
Transit Case Systems	RF-5382H-TM001	RF-382A-15TM

Mounting Systems



RF-5211VSM

R/T Shock Mount

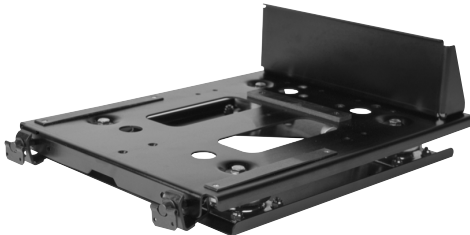
The RF-5211VSM is a short profile vehicular mount for the RF-5800H-MP manpack that is used specifically for vehicles with space constraints. The RF-5800H-MP is mounted directly to the shock mount without the battery case. Power is supplied to the transceiver via a Power Amplifier Control Cable connected between the RF-5800H-MP and the external power amplifier. The transceiver can be removed from this mount and connected to a battery case with batteries for jerk-and-run operation.

Finish/Color: Black.

10372-0874-01

Security Locking Kit for the RF-5211VSM

The 10372-0874-01 attaches to the RF-5211VSM shock mount to prevent unauthorized removal of the radio transceiver from the shock mount. The 10372-0874-01 requires the use of a padlock, which is not included.



RF-5870-VM001

Adjustable Shock Mount for the RF-5800H-MP with Batteries or Battery Eliminator

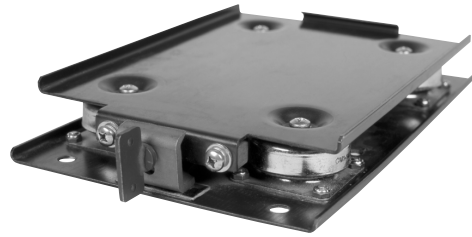
The RF-5870-VM001 is an adjustable shock mount that mounts the RF-5800H Manpack Transceiver for use on mobile systems when the use of the full Vehicular Adapter Kit is not required. It is adjustable to mount the manpack when used with the battery pack, RF-5850-PS001 Power Supply, or RF-5851-AD001 DC Adapter.

Finish/Color: Black.

RF-5870-VM002

Security Locking Kit for the RF-5870-VM001

The RF-5870-VM002 Security Lock attaches to the RF-5870-VM001 Shock Mount to prevent unauthorized removal of the radio transceiver from the shock mount. The RF-5870-VM002 requires the use of a padlock, which is not included.

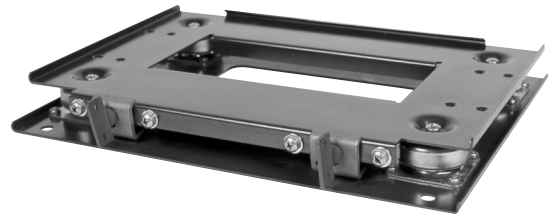


RF-5071VSM-03

Single Shock Mount for RF-5832H 125 W Power Amplifier or RF-5051PS-125 Power Supply

The RF-5071VSM-03 is a single shock mount for the RF-5832H-PA or the RF-5051PS-125 to provide isolation from high-impact shock and vibration in vehicular installations.

Finish/Color: Black.



RF-5072VSM-03

Dual Shock Mount for two RF-5832H Power Amplifiers, two RF-5051PS Power Supplies, or RF-5845H Pre/postselectors

The RF-5072VSM-03 is a dual shock mount for two RF-5832H-PAs or two RF-5051PS-125s. The RF-5072VSM may also be used to mount one RF-5845H-PP Digital Pre/Postselector. The unit provides isolation from high-impact shock and vibration in vehicular installations.

Finish/Color: Black.



RF-5073VSM

System Shock Mount for RF-5833H 150 W Power Amplifier

System shock mount for RF-5833H-PA.

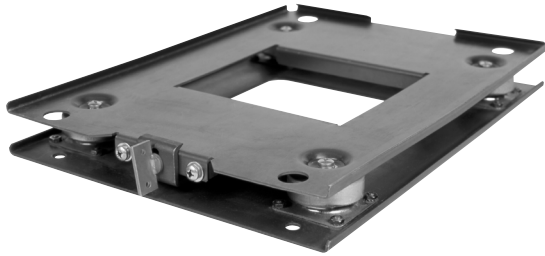
Finish/Color: CARC Green 383.

10497-0870-01

Security Locking Kit for the 150 Watt System

The 10497-0870-01 is a locking kit containing locking mechanisms for securing the RF-5800H to the RF-5833H-PA Power Amplifier and a mechanism to lock the RF-5833H-PA to the RF5073VSM shock mount. It prevents unauthorized removal of the radio transceiver from the shock mount. Requires the use of two padlocks, which are not included.

Finish/Color: Black.

**RF-5074VSM-03**

Single Shock Mount for RF-5834H-PA 400 Watt Power Amplifier

The single shock mount provides isolation from high-impact shock and vibration in vehicular installations.

**RF-5384VM-01**

Shock Mount for RF-5382H Antenna Coupler

This quick release shock mount for the RF-5382H Antenna Coupler is designed to provide isolation from the high-impact shock and vibration encountered in wheeled and tracked vehicles. The shock mount incorporates a quick release feature that allows rapid relocation of the RF-5382H between the vehicle and the RF-5351 series of siting kits.

Finish/Color: Black.

**RF-383VM-01**

Shock Mount for RF-382A-15 Antenna Coupler for Tracked Vehicles

This quick release shock mount for the RF-382A-15 Antenna Coupler is designed to provide isolation from the shock and vibration of tracked vehicles such as MB Tanks, APCs, and SPGs. The shock mount incorporates a quick release feature that allows rapid interchangeability between the vehicle and the RF-5351 series of siting kits. Must be mounted horizontally.

Finish/Color: CARC Green 383.

**RF-384VM-03**

Shock Mount for RF-382A-15 Antenna Coupler for Wheeled Vehicles

This quick release shock mount for the RF-382A-04 Antenna Coupler is designed to provide isolation from the high-impact shock and vibration encountered in wheeled vehicles such as military HMMWVs. The shock mount incorporates a quick release feature that allows rapid relocation of the RF-382 between the vehicle and the RF-5351 series of siting kits.

Finish/Color: CARC Green 383.

RF-5351-AT001

Dipole Antenna 20 m Remote Siting Kit for the RF-5382H Antenna Coupler

The RF-5351-AT001 is a complete kit designed to allow a vehicle based RF-5382H Antenna Coupler to be disconnected from the vehicle and remotely located up to 20 m (67 feet) away. The mounting plate provides the ability to connect to the strain relief on a dipole antenna. It provides the mounting plate, extender cables on winders, ground rod, anchor stakes, and a carrying bag for the loose parts. It does not include the vehicular shock mount assembly (RF-5384VM-01 recommended). A list of contents is found in Table 1.1-4.

Finish/Color: CARC Green 383.

RF-5351-AT002

Dipole Antenna 50 m Remote Siting Kit for the RF-5382H Antenna Coupler

The RF-5351-AT002 is a complete kit designed to allow a vehicle based RF-5382H Antenna Coupler to be disconnected from the vehicle and remotely located up to 50 m (166 feet) away. The mounting plate provides the ability to connect to the strain relief on a dipole antenna. It provides the mounting plate, extender cables on a reel, ground rod, anchor stakes, and a carrying bag for the loose parts. It does not include the vehicular shock mount assembly (RF-5384VM-01 recommended). A list of contents is found in Table 1.1-4.

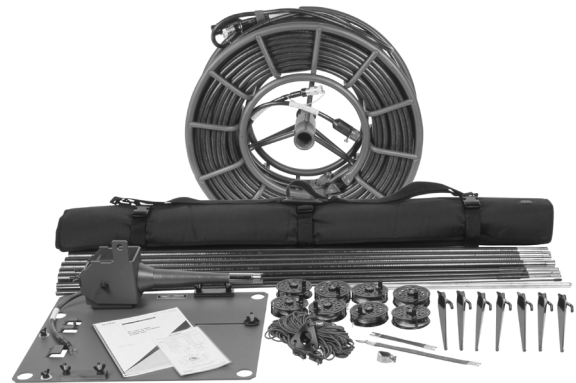
Finish/Color: CARC Green 383.

RF-5351-AT003

Whip and Dipole Antenna 20 m Remote Siting Kit for the RF-5382H Antenna Coupler

The RF-5351-AT003 is a complete kit designed to allow a vehicle based RF-5382H Antenna Coupler to be disconnected from the vehicle and remotely located up to 20 m (67 feet) away. The mounting plate provides a whip antenna base as well as the ability to connect to the strain relief on a dipole antenna. A 32 foot whip antenna is included in the kit. The kit includes the mounting plate with hinged antenna base for SB-V series whip antenna, extender cables on winders, ground rod, radials, guys and stakes, anchor stakes, and a carrying bag for the whip antenna and loose parts. It does not include the vehicular shock mount assembly (RF-5384VM-01 recommended). A list of contents is found in Table 1.1-4.

Finish/Color: CARC Green 383.

**RF-5351-AT004**

Whip and Dipole Antenna 50 m Remote Siting Kit for the RF-5382H Antenna Coupler

The RF-5351-AT004 is a complete kit designed to allow a vehicle based RF-5382H Antenna Coupler to be disconnected from the vehicle and remotely located up to 50 m (166 feet) away. The mounting plate provides a whip antenna base as well as the ability to connect to the strain relief on a dipole antenna. A 32 foot whip antenna is included in the kit. The kit includes the mounting plate with hinged antenna base for SB-V series whip antenna, extender cables on a reel, ground rod, radials, guys and stakes, anchor stakes, and a carrying bag for the whip antenna and loose parts. It does not include the vehicular shock mount assembly (RF-5384VM-01 recommended). A list of contents is found in Table 1.1-4.

Finish/Color: CARC Green 383.

Table 1.1-4
Siting Kits for the RF-5382H Antenna Coupler

Part	RF-5351-AT001	RF-5351-AT002	RF-5351-AT003	RF-5351-AT004	RF-5351-AT005
Dipole Compatible	•	•	•	•	•
Whip Compatible			•	•	•
Extension Cable Length	20m	50m	20m	50m	
Cable winders	•		•		
Cable reel		•		•	
Whip antenna base			•	•	•
32 foot whip antenna			•	•	
Control extension cable	•	•	•	•	
RF coax extension cable	•	•	•	•	
Ground radials			•	•	•
Antenna guys and stakes			•	•	•
Bag for accessories	•	•			•
Bag for whip and accessories			•	•	

RF-5351-AT005

Whip and Dipole Antenna Siting Kit for the RF-5382H and RF-382A Antenna Couplers

The RF-5351-AT005 is a siting kit designed for temporary installations of dipole or whips systems utilizing the RF-5382H or RF-382A antenna couplers. The mounting plate provides a whip antenna base as well as the ability to connect to the strain relief on a dipole antenna. The kit includes the mounting plate, ground rod, radials, guys and stakes, anchor stakes, and a carrying bag for the loose parts. It does not include extender cable assemblies. A list of contents is found in Table 1.1-4.

Finish/Color: CARC Green 383.

RF-5351-AT011

Dipole Antenna 20 m Remote Siting Kit for the RF-382A Antenna Coupler

The RF-5351-AT011 is a complete kit designed to allow a vehicle based RF-382A Antenna Coupler to be disconnected from the vehicle and remotely located up to 20 m (67 feet) away. The mounting plate provides the ability to connect to the strain relief on a dipole antenna. It provides the mounting plate, extender cables on winders, ground rod, anchor stakes, and a carrying bag for the loose parts. It does not include the vehicular shock mount assembly (RF-383VM-01 or RF-384VM-03 recommended). A list of contents is found in Table 1.1-5.

Finish/Color: CARC Green 383.

RF-5351-AT012

Dipole Antenna 50 m Remote Siting Kit for the RF-382A Antenna Coupler

The RF-5351-AT012 is a complete kit designed to allow a vehicle based RF-382A Antenna Coupler to be disconnected from the vehicle and remotely located up to 50 m (166 feet) away. The mounting plate provides the ability to connect to the strain relief on a dipole antenna. It provides the mounting plate, extender cables on a reel, ground rod, anchor stakes, and a carrying bag for the loose parts. It does not include the vehicular shock mount assembly (RF-383VM-01 or RF-384VM-03 recommended). A list of contents is found in Table 1.1-5.

Finish/Color: CARC Green 383.

RF-5351-AT013

Whip and Dipole Antenna 20 m Remote Siting Kit for the RF-382A Antenna Coupler

The RF-5351-AT013 is a complete kit designed to allow a vehicle based RF-382A Antenna Coupler to be disconnected from the vehicle and remotely located up to 20 m (67 feet) away. The mounting plate provides a whip antenna base as well as the ability to connect to the strain relief on a dipole antenna. A 32 foot whip antenna is included in the kit. The kit includes the mounting plate with a hinged antenna base station for the SB-V series whip antenna, extender cables on winders, ground rod, radials, guys and stakes, anchor stakes, and a carrying bag for the whip antenna and loose parts. It does not include the vehicular shock mount assembly (RF-383VM-01 or RF-384VM-03 recommended). A list of contents is found in Table 1.1-5.

Finish/Color: CARC Green 383.

RF-5351-AT014

Whip and Dipole Antenna 50 m Remote Siting Kit for the RF-382A Antenna Coupler

The RF-5351-AT014 is a complete kit designed to allow a vehicle based RF-382 Antenna Coupler to be disconnected from the vehicle and remotely located up to 50 m (166 feet) away. The mounting plate provides a whip antenna base as well as the ability to connect to the strain relief on a dipole antenna. A 32 foot whip antenna is included in the kit. The kit includes the mounting plate with hinged antenna base for the SB-V series whip antenna, extender cables on a reel, ground rod, radials, guys and stakes, anchor stakes, and a carrying bag for the whip antenna and loose parts. It does not include the vehicular shock mount assembly (RF-383VM-01 or RF-384VM-03 recommended). A list of contents is found in Table 1.1-5.

Finish/Color: CARC Green 383.

Table 1.1-5
Siting Kits for the RF-382A Antenna Coupler

Part	RF-5351-AT011	RF-5351-AT012	RF-5351-AT013	RF-5351-AT014	RF-5351-AT005
Dipole Compatible	•	•	•	•	•
Whip Compatible			•	•	•
Extension Cable Length	20m	50m	20m	50m	
Cable winders	•		•		
Cable reel		•		•	
Whip antenna base			•	•	•
32 foot whip antenna			•	•	
Control extension cable	•	•	•	•	
RF coax extension cable	•	•	•	•	
Ground radials			•	•	•
Antenna guys and stakes			•	•	•
Bag for accessories	•	•			•
Bag for whip and accessories			•	•	

Recommended Accessories

This section summarizes recommended accessories for the Falcon II HF product line. Detailed descriptions can be found in other sections.

Table 1.1-6
Cable Assemblies and Connector Kits*
 [More detail can be found in Section 1.6, Common Accessories]

Interface	Cable	Description
PLGR (GPS) to RF-5800H	12005-0730	R/T to standard PLGR
KY-99 to RF-5800H	10535-0701	KY-99 Audio to RF-5800H and PC data to RF-5800H DTE, Y-cable, 25 pin D to PC
KY-99 to RF-5800H	10535-0702-AI	RS-232 black data from KY-99 to RF-5800H DTE
KY-99 and PC to RF-5800H	10535-0703	KY-99 Audio to RF-5800H and PC control to RF-5800H PPP, Y-cable, 25 pin D to PC
KG-84C to RF-5800H	10535-0750	RS-232 black data
RF-5800H to PC	10518-1694	PC control (9 pin D) to RF-5800H PPP and PC data (25 pin D) to RF-5800H DTE, Y-cable
RF-5800H to PC	10535-0740	ASCII remote control from Accessory connector (J6), 9 pin D to PC
RF-5800H to PC	10535-0760	ASCII remote control from Rear Panel D-connector, 9 pin D to PC
RF-5800H to PC	10535-0775	Asynchronous RS-232 PPP data (used with RPA, 3G email, TacChat), 9 pin D to PC
RF-5800H to PC	10535-0780	Synchronous RS-232 DTE data (used with HUIITS) 25 pin D to PC
RF-5800H to KDU	10511-0704	KDU extension
RF-5800H to microphone	10372-1230	Microphone "Y-Adapter" Cable
RF-5800H to Speaker	10535-0707	10181-5180-01 Tactical Speaker to RF-5800H audio connector
Speaker to power	10535-0708	10181-5180-01 Tactical Speaker to vehicular power
Speaker to power	10535-0706	10181-5180-01 Tactical Speaker to RF-5051PS
Audio Remote	10012-0714-01	RF-5800H to RF-3045 Audio Remote Control
RF-5800H to intercom	10535-0704	AN/VIC-3 Audio to R/T RF-5800H to intercom
RF-5800H to intercom	10564-1670	AN/VIC-1 Audio to R/T
RF-5800H to intercom	10564-1671	AN/VIC-3 Audio and data to R/T
RF-5800H to intercom	10564-1672	AN/VIC-1 Audio and data to R/T
RF-5800H to Audio and Data	10511-0707	Unterminated generic cable to radio J3
RF-5830H to RF-5800H	10535-0720	Control
RF-5830H to RF-5800H	10181-9824	RF, coax
RF-5830H to power	10181-9827	DC power, PA to vehicle
RF-5832H to RF-5800H	10535-0720	Control
RF-5832H to RF-5800H	10181-9824	RF, coax
RF-5832H to power	10181-9826	DC power, PA to vehicle
RF-5832H to power	10181-9833	DC power, PA to RF-5051PS
RF-5833H to RF-5800H	10535-0720	Control
RF-5833H to RF-5800H	10181-9824	RF, coax
RF-5833H to power	10181-9826	DC power, PA to vehicle
RF-5833H to audio	10497-5036-01	Audio
RF-5833H to power	10181-9833	DC power, PA to RF-5051PS
RF-5834H to RF-5800H	10535-0720	Control
RF-5834H to RF-5800H	10181-9824	RF, coax
RF-5834H to power	10181-9828	DC power, PA to vehicle
RF-5834H to power	10181-9834	DC power, PA to RF-5054PS
RF-5382H to PA	12020-1460	RF-5832H or RF-5833H to RF-5382H control
RF-5382H to PA	10181-9824	RF-5832H or RF-5833H to RF-5382H RF, coax
RF-5382H to RF-5800H	12020-0710-A1	RF-5800H (no external PA) to RF-5382H control and power, Y-cable, Pigtails to power
RF-5382H to RF-5800H	12020-0710-B2	RF-5800H (no external PA) to RF-5382H control and power, Y-cable with connector for RF-5051 PS
RF-5382H to RF-5800H	10181-9825	RF-5800H (no external PA) to RF-5382H RF, coax, light duty (10 feet max)
RF-5382H to RF-5800H	10181-9824	RF-5800H (no external PA) to RF-5382H RF, coax, heavy duty
RF-382A to PA	10181-9823	RF-5832H, RF-5833H, or RF-5834H to RF-382A control
RF-382A to PA	10181-9824	RF-5832H, RF-5833H, or RF-5834H to RF-382A RF, coax
RF-5800H to PA and PC	10535-0730-A1	RF-5800H to PC (ASCII remote) and RF-5832H, RF-5833H, or RF-5834H, Y-cable
PA to Antennas	10369-7212	PA to RF-387, RF-398-02, AS-3013/VRC, RF, coax

*Note: See price list for standard lengths. Other non-standard lengths are available on special order with longer lead time.

Table 1.1-7
Mating Connectors

Products	Part Number	Radio Connector	Description
RF-5800H-MP	J69-0016-001	J3	Data mating connector
	J09-0039-001	J3	Data mating connector backshell
	J69-0016-002	J6	Accessory mating connector
	J69-0001-623	J1	Audio mating connector
	UG-88C/U	J7	Antenna BNC mating connector
	M39012/01-0005	J7	Antenna N mating connector
	J22-0126-026	J9	Accessory D mating connector
	J55-0155-515	J9	Accessory D mating connector hood
	10535-0900-01	J1,J3,J6,J7,J9	RF-5800H-MP mating connector kit
RF-5830H-PA	MS3116J12-10P	J8	PA Control mating connector
	UG-88C/U	J12	RF In BNC mating connector
	UG-88C/U	J11	RF Out Aux BNC mating connector
	MS3116J8-33S	J10	DC Power mating connector
RF-5832H-PA	MS3116J12-10P	J8	PA Control mating connector
	MS3116J14-5S	J10	DC Power mating connector
	M39012/01-0005	J11	RF Out N mating connector
	UG-88C/U	J12	RF in BNC mating connector
	10181-2640	J9	Coupler Control mating connector
RF-5833H-PA	MS3116J12-10P	J2	PA Control mating connector
	J09-0040-005	J2	PA Control mating connector backshell
	UG-88E/U	J1	RF In BNC mating connector
	MS3116J14-5S	J10	DC Power mating connector
	MS3116J8-33P	J3	Aux Power mating connector
	M39012/01-0005	J11	HF Antenna N mating connector
	10181-2640	J9	Coupler Control mating connector
	UG-88E/U	J8	VHF Antenna BNC mating connector
	J69-0001-623	J6	Audio mating connector
	J69-0001-623	J7	Audio mating connector
RF-5834H-PA	MS3116J12-10P	J8	PA Control mating connector
	M39012/01-0002	J11	RF Out N mating connector
	UG-88C/U	J12	RF In BNC mating connector
	UW1220FA17	J10	DC Power mating connector
	10181-2640	J9	Coupler Control mating connector
RF-5845H-PP	UG-88C/U	J1	Aux Antenna BNC mating connector
	UG-88C/U	J4	PA Input BNC mating connector
	UG-88C/U	J5	RT BNC mating connector
	M39012/01-0002	J2	Antenna N mating connector
	M39012/01-0002	J3	PA Output N mating connector
	MS3116J12-10P	J6	Control mating connector
	MS3116J12-10S	J7	Control mating connector
RF-5382-CU	MS3116E14-19S	J2	Control mating connector
	M39012/01-0005	J1	RF In N mating connector
	M39012/01-0005	J4	50 ohm port N mating connector
RF-382A-15	10075-1041	J2	Control mating connector
	M39012/01-0005	J1	RF In N mating connector
	M39012/01-0005	J3	50 ohm port N mating connector

Batteries

More detail on batteries, chargers, and other battery accessories can be found in Section 1.6, Common Accessories.

Part Number	Technology
BA-5590/U	Disposable Lithium
BB-390A/U	Rechargeable Nickel Metal Hydride
10075-1375-01 (BB-590/U)	Rechargeable Nickel-Cadmium
BB-2590/U*	Rechargeable Lithium-Ion

* Can be used on RF-5800H and AN/PRC-150(C) radios manufactured or upgraded after May 2004.

Power Supplies and Battery Eliminators

More detail on power supplies can be found in Section 1.6, Common Accessories.

Part number	Description	Suitable for
RF-5850-PS001	Battery Eliminator	RF-5800H-MP
RF-5851-AD001	DC power Adapter	RF-5800H-MP
RF-5051PS	AC/DC Power Supply	20W, 125W, and 150W systems
RF-5052PS	12/24 VDC Converter	20W and 125W systems
RF-5054PS	AC/DC Power supply	400W systems
RF-5055PS	AC/DC Power Supply	150W low duty cycle
RF-5056PS	12/24 VDC Converter	150W low duty cycle

Audio Accessories

More detail on audio accessories can be found in Section 1.6, Common Accessories.

Part number	Description
10075-1399	Lightweight Handset — H-250/U type
RF-3016-03	CW Key with Knee Clip
RF-3016-04	CW Key — Base Station
RF-3014-02	Headset with Boom Microphone-Dual Earpiece
RF-294A	Intercom system
10564-1660-01	Intercom Interface Unit
RF-3020-HS001	Lightweight Headset
RF-3020-HS002	Lightweight Headset with silent PTT
10181-5180-01	Tactical Amplified Speaker

Carrying Accessories

More detail on carrying accessories can be found in Section 1.6, Common Accessories.

Part number	Description
10512-0465-01	Backpack carrying bag
10512-0470-01	KDU wrist strap

Antennas

More detail on antennas and additional specialty antennas can be found in Section 6, Antennas.

Part number	Description
RF-1940-AT001	Portable Dipole, 3 to 30 MHz
RF-1941	Portable Dipole, 2 to 30 MHz
RF-1912 series	HF Fan Dipole, 1.6 to 30 MHz
RF-1936P-10	Crossed Dipole for NVIS, 2 to 30 MHz
RF-1938AT-10	Crossed Dipole for NVIS, 2 to 30 MHz
SB-A150	Long Wire, 1.6 to 30 MHz
SB-V16 series	16 foot whips
SB-V35 series	32 foot whips

Software Products

More detail on software products can be found in Section 3, Data Products.

Part number	Description
RF-6710W series	Wireless Message Terminals for email
RF-6750W	Wireless Gateways for email
RF-3710H	HUITS for imaging
RF-6705	Tactical Messaging Software

FALCON I to FALCON II Conversion Kits

Part number	Description
10558-0743-01	RF-5000B-400EC to RF-5800H-B003
10558-0743-02	RF-5000B-400E to RF-5800H-B003
10558-0718-01	RF-5000V-400EC to RF-5800H-V003
10558-0718-02	RF-5000V-400E to RF-5800H-V003
10558-0704-01	RF-5000B-125EC to RF-5800H-B004
10558-0704-02	RF-5000B-125E to RF-5800H-B004
10558-0707-01	RF-5000V-125EC to RF-5800H-V004
10558-0707-02	RF-5000V-125E to RF-5800H-V004
10497-0900-01	RF-5033PA-150 to RF-5833H-PA00X

See Product Management for additional upgrade kits.

(BB-590/U) : +1.1-23, 1.1-25
10012-0714-01 : 1.1-23
10075-1041 : 1.1-24
10075-1375-01 : +1.1-23, 1.1-25
10075-1399 : +1.1-23, 1.1-25
10181-2640 : 1.1-24
10181-5180-01 : +1.1-1, +1.1-4, 1.1-7, 1.1-12, +1.1-23, 1.1-25
10181-9821-004 : 1.1-12
10181-9821-008 : 1.1-7
10181-9821-015 : +1.1-1, +1.1-4, 1.1-7, 1.1-12
10181-9821-020 : +1.1-1, +1.1-4, 1.1-6, 1.1-11
10181-9823 : 1.1-13, 1.1-17, 1.1-23
10181-9823-250 : 1.1-13
10181-9824 : 1.1-13, 1.1-17, 1.1-23
10181-9824-250 : 1.1-13
10181-9825 : 1.1-23
10181-9826 : +1.1-1, +1.1-4, 1.1-6, 1.1-8, 1.1-23
10181-9826-020 : 1.1-6, 1.1-8
10181-9827 : +1.1-1, +1.1-4, 1.1-6, 1.1-23
10181-9827-020 : 1.1-6
10181-9828 : 1.1-11, 1.1-23
10181-9828-020 : 1.1-11
10181-9831-009 : +1.1-1, +1.1-4, 1.1-7, 1.1-9, 1.1-10, 1.1-11
10181-9833 : +1.1-1, +1.1-4, 1.1-7, 1.1-9, 1.1-10, 1.1-11, 1.1-23
10181-9833-004 : 1.1-7, 1.1-9, 1.1-10
10181-9833-02 : 1.1-7
10181-9834 : 1.1-12, 1.1-23
10181-9834-004 : 1.1-12
10208-0014-01 : 1.1-17
10286-0900-01 : 1.1-16
10286-0900-02 : 1.1-16
10299-5051-03 : +1.1-1, +1.1-4, 1.1-7, 1.1-9, 1.1-10, 1.1-11
10299-5054-03 : 1.1-12
10330-9250 : 1.1-17
10369-7212 : 1.1-23
10372-0874-01 : 1.1-18
10372-1230 : 1.1-23
10497-0200-01 : 1.1-8
10497-0340-01 : 1.1-16
10497-0360-02 : +1.1-1, +1.1-4, 1.1-8, 1.1-9, 1.1-11, 1.1-16
10497-0850-03 : 1.1-9
10497-0870-01 : 1.1-19
10497-0900-01 : +1.1-23, 1.1-25
10497-5015-01 : +1.1-1, +1.1-4, 1.1-8, 1.1-9, 1.1-10, 1.1-11
10497-5036-01 : +1.1-1, +1.1-4, 1.1-8, 1.1-9, 1.1-10, 1.1-11, 1.1-23
10511-0704 : 1.1-23
10511-0707 : 1.1-23
10512-0465-01 : +1.1-23, 1.1-25
10512-0470-01 : +1.1-23, 1.1-25
10515-0121-4200 : 1.1-6
10515-0122-4200 : +1.1-1, +1.1-4, 1.1-8, 1.1-9, 1.1-10, 1.1-11
10515-0123-4200 : 1.1-11, 1.1-12
10515-0124-4200 : 1.1-6, 1.1-7
10518-1694 : 1.1-23
10535-0700-A003 : 1.1-7
10535-0701 : 1.1-23
10535-0702-AI : 1.1-23
10535-0703 : 1.1-23
10535-0704 : 1.1-23
10535-0706 : 1.1-23
10535-0706-A008 : 1.1-12
10535-0706-A015 : +1.1-1, +1.1-4, 1.1-7, 1.1-12
10535-0707 : 1.1-23

10535-0707-A002 : †1.1-1, †1.1-4, 1.1-7, 1.1-12
10535-0707-A003 : †1.1-1, †1.1-4, 1.1-7, 1.1-12
10535-0708 : 1.1-23
10535-0720 : 1.1-23
10535-0720-A008 : †1.1-1, †1.1-4, 1.1-7, 1.1-12
10535-0720-A015 : †1.1-1, †1.1-4, 1.1-7, 1.1-12
10535-0720-A020 : †1.1-1, †1.1-4, 1.1-6, 1.1-11
10535-0720-B17 : †1.1-1, †1.1-4, 1.1-8, 1.1-9, 1.1-10, 1.1-11
10535-0730-A1 : 1.1-23
10535-0740 : 1.1-23
10535-0750 : 1.1-23
10535-0760 : 1.1-23
10535-0775 : 1.1-23
10535-0780 : 1.1-23
10535-0900-01 : 1.1-24
10558-0704-01 : †1.1-23, 1.1-25
10558-0704-02 : †1.1-23, 1.1-25
10558-0707-01 : †1.1-23, 1.1-25
10558-0707-02 : †1.1-23, 1.1-25
10558-0718-01 : †1.1-23, 1.1-25
10558-0718-02 : †1.1-23, 1.1-25
10558-0743-01 : †1.1-23, 1.1-25
10558-0743-02 : †1.1-23, 1.1-25
10558-2000-03 : 1.1-12
10558-2000-04 : 1.1-7
10564-1660-01 : †1.1-23, 1.1-25
10564-1670 : 1.1-23
10564-1671 : 1.1-23
10564-1672 : 1.1-23
12005-0730 : 1.1-23
12020-0710-A1 : 1.1-23
12020-0710-B2 : 1.1-17, 1.1-23
12020-1194-01 : 1.1-17
12020-1195-01 : 1.1-17
12020-1460 : 1.1-13, 1.1-17, 1.1-23
12020-1460-250 : 1.1-13

A

AN/PRC-150(C) : †1.1-1, 1.1-3, 1.1-5

B

BA-5590/U : †1.1-23, 1.1-25

BB-2590/U : †1.1-23, 1.1-25

BB-390A/U : †1.1-23, 1.1-25

C

Citadel® : †1.1-1

I

Internal GPS Receiver : †1.1-1, 1.1-3

J

J09-0039-001 : 1.1-24

J09-0040-005 : 1.1-24

J22-0126-026 : 1.1-24

J55-0155-515 : 1.1-24

J69-0001-623 : 1.1-24

J69-0016-001 : 1.1-24

J69-0016-002 : 1.1-24

M

M39012/01-0002 : 1.1-24

M39012/01-0005 : 1.1-24

MS3116E14-19S : 1.1-24

MS3116J12-10P : 1.1-24

MS3116J12-10S : 1.1-24

MS3116J14-5S : 1.1-24

MS3116J8-33P : 1.1-24

MS3116J8-33S : 1.1-24

R

RF-1912 series : †1.1-23, 1.1-25
RF-1936P-10 : 1.1-25
RF-1938AT-10 : †1.1-23, 1.1-25
RF-1940-AT001 : †1.1-23, 1.1-25
RF-1941 : †1.1-23, 1.1-25
RF-285-04 : 1.1-17
RF-294A : †1.1-23, 1.1-25
RF-3014-02 : †1.1-23, 1.1-25
RF-3016-03 : †1.1-23, 1.1-25
RF-3016-04 : †1.1-23, 1.1-25
RF-3020-HS001 : †1.1-23, 1.1-25
RF-3020-HS002 : †1.1-23, 1.1-25
RF-3710H : †1.1-23, 1.1-25
RF-382A-15 : 1.1-13, 1.1-17, 1.1-19, 1.1-24
RF-382A-15TM : 1.1-13, 1.1-17
RF-383VM-01 : 1.1-17, 1.1-19, 1.1-21, 1.1-22
RF-384VM-03 : 1.1-17, 1.1-19, 1.1-21, 1.1-22
RF-5051PS : 1.1-18, †1.1-23, 1.1-25
RF-5052PS : †1.1-23, 1.1-25
RF-5054PS : †1.1-23, 1.1-25
RF-5055PS : †1.1-23, 1.1-25
RF-5056PS : †1.1-23, 1.1-25
RF-5071VSM-03 : †1.1-1, †1.1-4, 1.1-6, 1.1-14, 1.1-18
RF-5072VSM-03 : 1.1-16, 1.1-18
RF-5073VSM : 1.1-15, 1.1-18
RF-5074VSM-03 : 1.1-11, 1.1-15, 1.1-19
RF-5211VSM : †1.1-1, †1.1-4, 1.1-6, 1.1-11, 1.1-18
RF-5245 : †1.1-1, †1.1-4, 1.1-8, 1.1-9, 1.1-10, 1.1-11, 1.1-15, 1.1-16
RF-5351-AT : 1.1-17
RF-5351-AT001 : †1.1-18, 1.1-20, 1.1-21
RF-5351-AT002 : †1.1-18, 1.1-20, 1.1-21
RF-5351-AT003 : †1.1-18, 1.1-20, 1.1-21
RF-5351-AT004 : †1.1-18, 1.1-20, 1.1-21
RF-5351-AT005 : †1.1-18, 1.1-21, 1.1-22
RF-5351-AT011 : 1.1-21, 1.1-22
RF-5351-AT012 : 1.1-22
RF-5351-AT013 : 1.1-22
RF-5351-AT014 : 1.1-22
RF-5382H-CU001 : 1.1-17
RF-5382H-TM001 : 1.1-13, 1.1-17
RF-5384VM-01 : 1.1-17, 1.1-19, 1.1-20
RF-5800H-B001 : †1.1-1, †1.1-4, 1.1-9
RF-5800H-B002 : †1.1-1, †1.1-4, 1.1-9
RF-5800H-B003 : 1.1-12, 1.1-16, †1.1-23, 1.1-25
RF-5800H-B004 : †1.1-1, †1.1-4, 1.1-7
RF-5800H-MP : †1.1-1, 1.1-2, 1.1-5
RF-5800H-MP025 : †1.1-1, 1.1-3
RF-5800H-MP026 : †1.1-1, 1.1-3
RF-5800H-MP035 : †1.1-1, 1.1-3
RF-5800H-MP036 : †1.1-1, 1.1-3
RF-5800H-TM001 : †1.1-1, †1.1-4, 1.1-10
RF-5800H-TM002 : †1.1-1, †1.1-4, 1.1-10
RF-5800H-TM003 : 1.1-12, 1.1-13
RF-5800H-TM004 : †1.1-1, †1.1-4, 1.1-7
RF-5800H-V001 : †1.1-1, †1.1-4, 1.1-8
RF-5800H-V002 : †1.1-1, †1.1-4, 1.1-8
RF-5800H-V003 : 1.1-11, 1.1-16, †1.1-23, 1.1-25
RF-5800H-V004 : †1.1-1, †1.1-4, 1.1-6
RF-5800H-V005 : †1.1-1, †1.1-4, 1.1-6
RF-5830H : 1.1-6
RF-5830H-PA001 : 1.1-14
RF-5832H : 1.1-6, 1.1-7

RF-5800H HF FALCON II Series



RF-5800H-MP

Advanced HF-SSB/VHF-FM Tactical Radio System — Manpack

The RF-5800H-MP is an advanced HF/VHF manpack radio that provides reliable tactical communications through enhanced secure voice and data performance, reduced size/weight and extended battery life. The removable keypad/display unit enables operation on-the-move with the transceiver stowed in the user's backpack.

The RF-5800H-MP HF-SSB/VHF-FM transceiver covers 1.6 to 60 MHz at 1, 5, and 20 watts (10 watts FM) PEP/Average. Modes include USB, LSB, CW, AME, and FM. A simple, menu-driven, man-machine interface makes operation easy. Seventy-five user defined net presets provide complete radio configuration including radio operating mode, modem setting, encryption keys.

Key features include:

- High-Speed Modem Waveforms — The embedded modem waveform suite offers the most advanced HF data capability available in the tactical radio market place. The supported MIL-STD-188-110B waveforms include the serial tone (2400 bps) modem, high data rate (9600 bps) modem, parallel tone (2400 bps) modem, as well as a set of narrowband FSK waveforms. Also included are the STANAG 4285 and STANAG 4415 serial tone waveforms. Adaptive excision filtering and equalization improve the data modem performance in fading and noisy channels, and counteracts jamming.
- MELP and LPC-10, 600/2400 bps digital voice — The digital voice mode utilizes the latest military MELP and LPC-10 algorithms for high-quality secure narrowband voice at 2400 bps. The Harris 600 bps vocoders extend the communication range beyond conventional 2400 bps systems.
- Enhanced Frequency Hopping (ECCM) — A proprietary serial tone ECCM provides digital voice and data performance comparable to single channel serial tone modem.

- pFED-STD-1052 Data Link Layer Protocol (ARQ) — mode ensures error-free data communication while
- MIL-STD-188-141B, Appendix A, Automatic Link Establishment (ALE) — ALE allows the transceiver to automatically locate the best available channel and link with a desired station or net. The radio also provides AL-1 Linking Protection.
- STANAG 4538 Third generation HF Link Automation Establishment (ALE) and data link protocols. Provides superior linking and error free data performance. Fast link setup (FLSU) protocol suite is supported.

When used with an applicable data terminal, this ARQ minimizing on-the-air transmission time.

— Latest integrated high performance Automated Link

Additional standard features include a removable keypad/ display unit, 24 VDC or self-contained battery operation and RS-232 ASCII and binary SNMP remote control. The RF-5800H-MP optional features include Citadel® digital encryption, Datotek digital encryption, and an embedded GPS receiver. These features are available in system configuration as shown in Table 1.1-1. The RF-5800H-MP does not include external mating connectors. See Table 1.1-7 for list of mating connectors.

Finish/Color: CARC Green 383.

The RF-5800H-MP radio system includes as a minimum:

- RF-5800H Transceiver
- Operator's Manual
- OE-505 Manpack Antenna Kit
- Enhanced H-250/U type Handset
- Battery Case
- Keypad/Display Unit remote cable
- Ground Stake Kit
- Radio Programming Application
- Asynchronous Programming Cable
- Tactical Chat Communications Software

Optional Features

Citadel® Encryption

The Internal Encryption is fully integrated with the digital voice, data, and ARQ capabilities of the radio, providing full security and ease of use. It uses the advanced Harris Citadel encryption chip for its cryptographic engine to provide high-grade information security. The standard option uses the standard Harris proprietary encryption algorithm. This option also provides Analog Voice Security (AVS) for single channel voice communication. AVS provides moderate level security using a two-dimensional time frequency scrambling technique, while maintaining excellent voice purity with no reduction in communication range. Customer-unique algorithms, also using the Citadel chip are available on special order — contact Product Management. See Table 1.1-1 for manpack configurations.

Datotek Encryption

This encryption option provides backward compatibility with FALCON® RF-5000 series and AN/PRC-138 radios when operated in the encrypted mode. Modes of interoperability are 2400 bps LPC-10 digital voice, and up to 2400 bps data in both fixed frequency and MIL-STD-188-141B modes. See Table 1.1-1 for manpack configurations.

Internal GPS Receiver

The GPS option integrates a 12-channel, C/A Code GPS receiver into the RF-5800 transceiver. This GPS receiver provides front panel display of the unit’s position, including longitude, latitude, altitude, speed, and heading. Accurate time derived from the GPS system is also displayed. The RF-5800H-MP also sends position reports automatically to other RF-5800H radio for automated situational awareness. A “hockey puck” GPS antenna (10511-0400-01) with magnetic mounting suitable for portable use is included with the option. See Table 1.1-1 for manpack configurations.

Table 1.1-1.
RF-5800H Optional Features

System Configuration	Encryption	Internal GPS Receiver
RF-5800H-MP025	Citadel	—
RF-5800H-MP026	Citadel	GPS
RF-5800H-MP035	Citadel	—
	Datotek	
RF-5800H-MP036	Citadel	GPS
	Datotek	

RF-5832H-PA001 : 1.1-14
RF-5833H : 1.1-8
RF-5833H-PA001 : †1.1-1, †1.1-4, 1.1-9, 1.1-10, 1.1-15
RF-5833H-PA002 : †1.1-1, †1.1-4, 1.1-9, 1.1-11, 1.1-15, 1.1-16
RF-5834H : 1.1-11, 1.1-12, 1.1-15, 1.1-16, 1.1-19, 1.1-23, 1.1-24
RF-5834H-PA001 : 1.1-15
RF-5845H-PP001 : 1.1-16
RF-5850-PS001 : 1.1-18, †1.1-23, 1.1-25
RF-5851-AD001 : 1.1-18, †1.1-23, 1.1-25
RF-5870-VM001 : 1.1-18
RF-5870-VM002 : 1.1-18
RF-6705 : 1.1-25
RF-6710W series : †1.1-23, 1.1-25
RF-6750W : †1.1-23, 1.1-25

S

SB-A150 : †1.1-23, 1.1-25
SB-V16 series : †1.1-23, 1.1-25
SB-V35 series : †1.1-23, 1.1-25

U

UG-88C/U : 1.1-24
UG-88E/U : 1.1-24
UW1220FA17 : 1.1-24